

Metribuzin Tank Mixes for Waterhemp Control

Brooklyn, WI 2024

Trial Information

Trial Sponsor(s): United Soybean Board

Objective: Evaluate several PRE herbicide tank mixtures with two rates of metribuzin for waterhemp residual control

Crop: Enlist Soybean

Variety: NK22-C4E3

Weed species (pressure): glyphosate-resistant waterhemp (high)

Herbicide Application(s): PRE – 5/23

For the full report see trial #24-BRO-USB03 in the [2024 Wisconsin Weed Science Research Report](#)



Cropping Systems Weed Science
UNIVERSITY OF WISCONSIN-MADISON

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Trt #	Herbicide (rate acre ⁻¹)	Soybean Injury (%)		Waterhemp (%)		Biomass Red. ^b (%)
		21 DAT	34 DAT	21 DAT	34 DAT	34 DAT
1	Untreated Check	0	0	0	0	0
One-Pass – PRE (5/23)						
2	Metricor DF (6 oz)	0.3	0.0	51	34	30
3	Metricor DF (10 oz)	0.0	0.0	58	58	36
4	Valor EZ (2.5 fl oz)	2.8	0.0	99	84	91
5	Zidua SC (3.5 fl oz)	0.8	0.0	99	86	95
6	Metricor DF (6 oz) + Valor EZ (2.5 fl oz)	1.8	0.0	100	86	97
7	Metricor DF (10 oz) + Valor EZ (2.5 fl oz)	3.0	0.0	100	89	97
8	Metricor DF (6 oz) + Zidua SC (3.5 fl oz)	0.8	0.0	99	90	99
9	Metricor DF (10 oz) + Zidua SC (3.5 fl oz)	2.0	0.0	100	92	98
10	Valor EZ (2.5 fl oz) + Zidua SC (3.5 fl oz)	4.0	0.0	100	96	100
11	Metricor DF (6 oz) + Valor EZ (2.5 fl oz) + Zidua SC (3.5 fl oz)	5.3	0.0	100	98	100
12	Metricor DF (10 oz) + Valor EZ (2.5 fl oz) + Zidua SC (3.5 fl oz)	4.5	0.0	100	98	99
13	Surveil (3.5 oz)	4.3	0.0	100	83	97
14	Metricor (6 oz) + Surveil (3.5 oz)	3.0	0.0	100	85	94
15	Metricor (10 oz) + Surveil (3.5 oz)	4.5	0.0	100	88	97
16	Metricor (6 oz) + Surveil (3.5 oz) + Zidua SC (3.5 fl oz)	7.0	0.0	100	98	100
17	Metricor (10 oz) + Surveil (3.5 oz) + Zidua SC (3.5 fl oz)	4.8	0.0	100	99	100
18	Fierce MTZ (1.25 pt)	3.8	0.0	100	98	100
19	Fierce MTZ (1.25 pt) + Metricor DF (1 oz)	4.5	0.0	100	97	100
20	Fierce MTZ (1.25 pt) + Metricor DF (5 oz)	3.5	0.0	100	97	100
		LSD ($\alpha=0.10$)	1.2	ns	3	12
		p value	<0.001	ns	<0.001	<0.001

^aVisual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

^bBiomass reduction (%) relative to the untreated check. Biomass was sampled from two 0.25 m² quadrats plot⁻¹.

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Plot pictures taken on 6/13
21 days after the PRE application

The number in the upper right-hand corner is the
average % waterhemp control of 4 replications

Soybean Injury – 21 DAT

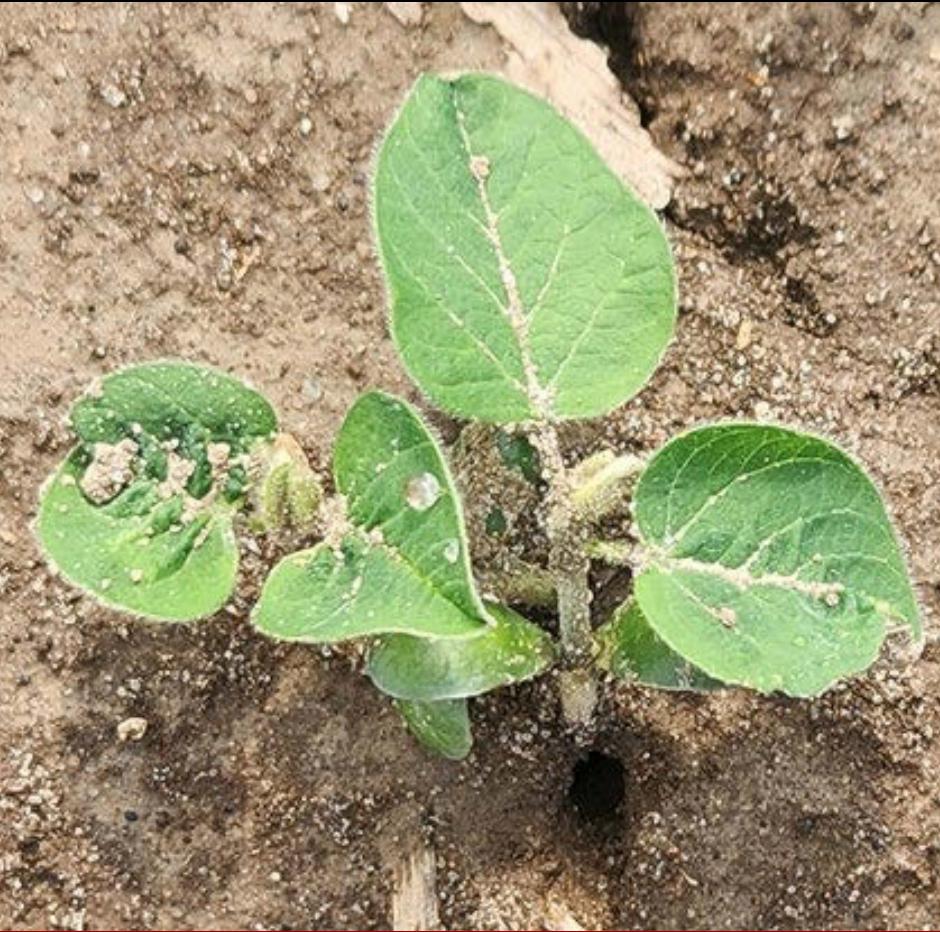
Untreated Check – 0%



2.5 oz Valor EZ – 3%



6 oz Metricor DF + 2.5 oz Valor EZ + 3.5 oz Zidua SC – 5%



21 days after PRE (6/13)

Untreated Check

0%



21 days after PRE (6/13)

0%

Untreated Check



21 days after PRE (6/13)

PRE: 6 oz Metricor DF

51%



21 days after PRE (6/13)

PRE: 6 oz Metricor DF

51%



21 days after PRE (6/13)

PRE: 10 oz Metricor DF

58%



21 days after PRE (6/13)

PRE: 10 oz Metricor DF

58%



21 days after PRE (6/13)

PRE: 2.5 oz Valor EZ

99%



21 days after PRE (6/13)

PRE: 2.5 oz Valor EZ

99%



**21 days after PRE (6/13)
PRE: 3.5 oz Zidua SC**

99%



21 days after PRE (6/13)

PRE: 6 oz Metricor DF + 2.5 oz Valor EZ

100%



21 days after PRE (6/13)

PRE: 10 oz Metricor DF + 2.5 oz Valor EZ

100%



21 days after PRE (6/13)

99%

PRE: 6 oz Metricor DF + 3.5 oz Zidua SC



21 days after PRE (6/13)

PRE: 10 oz Metricor DF + 3.5 oz Zidua SC

100%



21 days after PRE (6/13)

PRE: 2.5 oz Valor EZ + 3.5 oz Zidua SC

100%



21 days after PRE (6/13)

100%

PRE: 6 oz Metricor DF + 2.5 oz Valor EZ + 3.5 oz Zidua SC



21 days after PRE (6/13)

PRE: 10 oz Metricor DF + 2.5 oz Valor EZ + 3.5 oz Zidua SC

100%



21 days after PRE (6/13)

PRE: 3.5 oz Surveil

100%



21 days after PRE (6/13)

PRE: 6 oz Metricor DF + 3.5 oz Surveil

100%



21 days after PRE (6/13)

PRE: 10 oz Metricor DF + 3.5 oz Surveil

100%



21 days after PRE (6/13)

PRE: 6 oz Metricor DF + 3.5 oz Surveil + 3.5 oz Zidua SC

100%



21 days after PRE (6/13)

PRE: 10 oz Metricor DF + 3.5 oz Surveil + 3.5 oz Zidua SC

100%



**21 days after PRE (6/13)
PRE: 1.25 pt Fierce MTZ**

100%



21 days after PRE (6/13)

PRE: 1.25 pt Fierce MTZ + 1 oz Metricor DF

100%



21 days after PRE (6/13)

PRE: 1.25 pt Fierce MTZ + 5 oz Metricor DF

100%



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Plot pictures taken on 6/27
34 days after the PRE application

The number in the upper right-hand corner is the average % waterhemp control of 4 replications

34 days after PRE (6/27)

Untreated Check

0%



34 days after PRE (6/27)

PRE: 6 oz Metricor DF

34%



34 days after PRE (6/27)

PRE: 10 oz Metricor DF

58%



34 days after PRE (6/27)

PRE: 2.5 oz Valor EZ

84%



34 days after PRE (6/27)

PRE: 3.5 oz Zidua SC

86%



34 days after PRE (6/27)

PRE: 6 oz Metricor DF + 2.5 oz Valor EZ

86%



34 days after PRE (6/27)

PRE: 10 oz Metricor DF + 2.5 oz Valor EZ

89%



34 days after PRE (6/27)

PRE: 6 oz Metricor DF + 3.5 oz Zidua SC

90%



34 days after PRE (6/27)

PRE: 10 oz Metricor DF + 3.5 oz Zidua SC

92%



34 days after PRE (6/27)

PRE: 2.5 oz Valor EZ + 3.5 oz Zidua SC

96%



34 days after PRE (6/27)

PRE: 6 oz Metricor DF + 2.5 oz Valor EZ + 3.5 oz Zidua SC

98%



34 days after PRE (6/27)

PRE: 10 oz Metricor DF + 2.5 oz Valor EZ + 3.5 oz Zidua SC

98%



34 days after PRE (6/27)

PRE: 3.5 oz Surveil

83%



34 days after PRE (6/27)

PRE: 6 oz Metricor DF + 3.5 oz Surveil

85%



34 days after PRE (6/27)

PRE: 10 oz Metricor DF + 3.5 oz Surveil

88%



34 days after PRE (6/27)

PRE: 6 oz Metricor DF + 3.5 oz Surveil + 3.5 oz Zidua SC

98%



34 days after PRE (6/27)

PRE: 10 oz Metricor DF + 3.5 oz Surveil + 3.5 oz Zidua SC

99%



34 days after PRE (6/27)
PRE: 1.25 pt Fierce MTZ

98%



34 days after PRE (6/27)

PRE: 1.25 pt Fierce MTZ + 1 oz Metricor DF

97%



34 days after PRE (6/27)

PRE: 1.25 pt Fierce MTZ + 5 oz Metricor DF

97%

